Kansas Medical Assistance Program

Retrospective Drug Utilization Review
Provider Education and Intervention Program
State Fiscal Year 2014

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Executive Summary

This *Outcomes Assessment* report prepared for the Kansas Medical Assistance Program shows the expected improvements in beneficiary health and cost savings from using retrospective drug utilization review and provider education to effect appropriate prescribing and utilization, and in turn, prevent adverse drug reactions and reduce costs in a targeted beneficiary population.

Program Summary

In an effort to improve clinical outcomes and reduce drug expenditures, as well as related healthcare costs, Kansas Medical Assistance Program beneficiaries found to have a drug therapy issue based upon the intervention topics were identified, and educational intervention letters were mailed to their prescribers in State Fiscal Year (SFY) 2014. The selected beneficiaries were then evaluated 6 months after the prescriber letters were mailed to determine the impact of the intervention letters. This report is a summary of all interventions mailed in SFY 2014.

In SFY 2014, intervention letters were mailed on five topics including Polypsychopharmacy, Nevirapine Black Box Warning, Clozapine Black Box Warning, Atazanavir Drug Interaction, and Adverse Atypical Antipsychotics Effect.

Changes in Criteria Exceptions

For all intervention letters mailed in SFY 2014, appropriate utilization was significantly improved in the target population at the 6-month post in intervention evaluation. Six months after letters were mailed to the prescribers, 147 of the original 197 beneficiaries had at least one claim for any drug and could be evaluated. **Of those remaining 147 beneficiaries, 57.81% were found to no longer have the same therapy problem that their prescriber received a letter regarding.** Based on improved utilization, it is clinically probable that serious adverse outcomes were avoided, and overall drug utilization was reduced.

PRE-Intervention	POST-Intervention		
Beneficiaries with Letter Mailed to Prescriber	Beneficiaries with Any Drug Claim	Beneficiaries with Same Criteria Exception	% Decrease in Criteria Exceptions
197	147	62	57.8%

Background

Health Information Designs (HID), in coordination with HP Enterprise Services (HPES), currently performs retrospective drug utilization review (RetroDUR) for Kansas Medical Assistance Program's fee-for-service (FFS) population. The total number of unique beneficiaries enrolled in the traditional Medicaid FFS population in SFY 2014 (July 1, 2013 – June 30, 2014) was 9,717. There were approximately 52,000 prescription drug claims paid for just under 2,500 beneficiaries during SFY 2014.

Beneficiary Identification and Prescriber Intervention

In an effort to promote appropriate prescribing and utilization of medications, HID identified beneficiaries with drug therapy problems based on each intervention topic and mailed educational letters to their prescribers. When more than one prescriber was attributed to pertinent claims on a patient profile, letters were mailed to all relevant prescribers. Informing prescribers of a patient's complete drug and diagnosis history, including medications prescribed by other providers, may reduce duplicate prescribing of medications.

While the intervention letter itself only addressed the intervention topics, HID included a patient profile with up to two additional alert messages regarding drug therapy issues and a 6-month history of drug claims and diagnoses along with the letter. Prescribers had the opportunity to review the beneficiary's entire drug and diagnosis history, including medications prescribed by other providers, and make changes to therapies based on this information.

Analysis Methodology

Each month, HID evaluates Kansas Medical Assistance Program pharmacy claims data against thousands of proprietary criteria. The criteria are developed and maintained by HID clinical pharmacists who review package insert updates, treatment guidelines, and medical literature to develop the criteria.

Beneficiary Selection

A total of 213 beneficiaries met the criteria for intervention letters. The drug history profile for each beneficiary was reviewed by a clinical pharmacist to determine if the beneficiary should be selected for intervention.

After beneficiaries were selected for intervention, educational intervention letters—along with a complete drug and diagnosis history profile listing all pharmacy and available diagnosis claims data for the past 6 months—were mailed to the appropriate prescribers. (Prior to mailing, generated letters undergo a quality assurance [QA] process. Some letters are not mailed due to various reasons, including missing or invalid prescriber addresses.)

	Beneficiaries Reviewed	Beneficiaries Selected for Intervention	Letters Generated	Letters Deleted in QA Process	Letters Mailed
Polypsychopharmacy	71	60	77	8	69
Nevirapine BBW	15	6	6	0	6
Clozapine BBW	16	16	21	3	18
Atazanavir Drug Interaction	12	6	7	0	7
Adverse Atypical Antipsychotic Effect	252	125	159	17	142
Totals	***366***	***213***	***270***	***28***	***242***

Once a beneficiary was selected for intervention, the criteria were suppressed by the DUR system for that beneficiary for 6 months.

Prescriber Response Tabulation

The intervention letter and drug history profile included a response form, which allowed the prescriber to provide feedback and enabled HID to determine whether any action would be taken in response to the letter. The response form includes standard responses printed on the form that allow the prescriber to check a box for the response that best fits their intended action and a space for the prescriber to write additional comments.

The prescribers were encouraged to return the response forms using the self-addressed stamped envelope included with the intervention letter or via fax. HID tracked all returned response forms and all written-in comments from prescribers for evaluation. See the Results section for these numbers.

Analysis Methodology

Evaluation of Changes in Criteria Exceptions

In an effort to determine the impact of the intervention letters independent of prescriber responses, beneficiary claims were evaluated 6 months after letters were mailed. HID first determined how many of the initially-selected beneficiaries continued to have Medicaid benefits and still had active eligibility by determining how many had any claim for any drug in the last month of the post-intervention period. HID then determined who still met the same criteria in the last month of the post-intervention period. See the Results section for these numbers.

Limitations

The reduction in criteria hits could be affected by multiple factors; it would be impossible to attribute the changes to just one thing, including the intervention letters.

Another limitation resulted from the fact that no eligibility data was available to determine whether beneficiaries continued to be eligible for Medicaid for the full 6 months before and after intervention letters were mailed. Therefore, as a means to test for Medicaid eligibility HID determined how many beneficiaries had any claim in the post-intervention period. Those beneficiaries who did not have a claim in the post-intervention period were not included in the follow-up analysis. It is possible that some patients who continued to have Medicaid eligibility but had no recent pharmacy claims may have been excluded from the follow-up analysis.

Results

Prescriber Responses to Intervention Letters

A total of 73 coded responses were received from prescribers who were sent an intervention letter in SFY 2014 for a response rate of 30.2%. Coded responses for each intervention are provided in the table below, followed by examples of written comments.

Response	Polypsycho-pharmacy	Nevirapine BBW	Clozapine BBW	Atazanavir Drug Interaction	Adverse Atypical Effect	*Totals*
Prescriber says problem is insignificant, no change in therapy	7	2	2	1	32	***44***
Patient is no longer under this prescriber's care	1	0	0	0	13	***14***
Tried to modify therapy, symptoms reoccurred	6	0	0	0	0	***6***
Prescriber did not write the prescription attributed to them	1	0	1	0	2	***4***
Benefits of the drug outweigh the risks	1	0	0	0	1	***2***
Patient has appointment to discuss therapy	1	0	0	0	0	***1***
Prescriber only saw this patient once as ER or on-call provider	1	0	0	0	0	***1***
Response form returned blank	0	0	0	1	0	***1***
Total Responses	***18***	***2***	***3***	***2***	***48***	***73***
Response Rate	***26.1%***	***33.3%***	***16.7%***	***28.6%***	***33.8%***	***30.2%***

Prescriber Comments

"Care is in conjunction with psych provider"

"Thank you"

"Stable on current meds and had not been hospitalized for several years"

"Patient is monitored, has gained no weight on meds and walks 5 miles several times a week"

"All psych meds are prescribed by psychiatrist"

Results

Prescriber Feedback on Intervention Letters

In addition to being able to provide information about their course of action following receipt of the intervention letter, prescribers are also able to provide additional feedback on intervention letters. Out of the 73 coded responses received, 30 provided additional feedback. A total of 50% of feedback responses ranked letters as "Useful" or "Extremely Useful." The table below shows the percentage of responses in each evaluation category.

	Polypsycho-pharmacy	Nevirapine BBW	Clozapine BBW	Atazanavir Drug Interaction	Adverse Atypical Effect	*Totals*
Extremely Useful	6.7%	0.0%	3.3%	0.0%	0.0%	***10.0%***
Useful	26.7%	0.0%	0.0%	0.0%	13.3%	***40.0%***
Neutral	0.0%	0.0%	6.7%	0.0%	26.7%	***33.3%***
Somewhat Useful	3.3%	0.0%	0.0%	0.0%	0.0%	***3.3%***
Not Useful	6.7%	3.3%	0.0%	0.0%	3.3%	***13.3%***
Total Responses	***43.3%***	***3.3%***	***10.0%***	***0.0%***	***43.3%***	

Changes in Criteria Exceptions

A total of 197 beneficiaries were selected for intervention. Six months after letters were mailed to the prescriber, 147 of the original 197 beneficiaries had at least one (1) claim for any drug and could be evaluated. Of those 147 beneficiaries, 62 (42.2%) hit the same criteria in the follow-up period, meaning they had the same therapy problem post-intervention that their prescriber received a letter regarding. ***The remaining 85 beneficiaries (57.8%) were found to no longer have the same therapy problem that their prescriber received a letter regarding.***

	PRE-Intervention	POST-Intervention		
	Beneficiaries with Letter Mailed to Prescriber	Beneficiaries with Any Drug Claim	Beneficiaries with Same Criteria Exception	% Decrease in Criteria Exceptions
Polypsychopharmacy	57	48	44	8.3%
Nevirapine BBW	6	4	0	100.0%
Clozapine BBW	14	13	12	7.7%
Atazanavir Drug Interaction	6	3	1	66.7%
Adverse Atypical Effect	114	79	5	93.7%
Totals	***197***	***147***	***62***	***57.8%***

Conclusion

The prescribing and utilization of drugs improved after intervention letters were mailed to prescribers for targeted beneficiaries. For beneficiaries with data available for follow up 6 months after letters were mailed, 57.8% of them no longer met the same criteria.

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Prescribers were encouraged to return response forms to indicate their intended action following the receipt of the intervention letter and patient profile. The overall response rate for SFY 2014 was 30.2%; 73 response forms indicating the prescriber's intended action were returned, and 30 feedback forms were returned. Prescriber feedback showed 50% of the feedback responses ranked the intervention letters as "Extremely Useful" or "Useful."